

# Breadcrumb

The `<aava-breadcrumbs>` provides a comprehensive navigation solution for displaying hierarchical navigation paths. It supports icons, collapsible behavior, multiple sizes, custom separators, and responsive design to enhance user navigation experience.

## How to use

Import the component and provide an array of breadcrumb items with their navigation properties.

## Basic Usage

Simple breadcrumb navigation with text labels.

```
import { AavaBreadcrumbsComponent } from "@aava/play-core";
```

## With Icons

Breadcrumbs with icons for enhanced visual representation.

```
<aava-breadcrumbs [breadcrumbs]="simpleBreadcrumbs"></aava-breadcrumbs>
```

## Size Variants

Four different size options (xs, sm, md, lg) for various design contexts.

```
simpleBreadcrumbs: BreadcrumbItem[] = [  
  { label: 'Home', url: '/home', active: false },  
  { label: 'Category', url: '/category', active: false },  
  { label: 'Product', url: '/product', active: true },  
];
```

## Collapsible Behavior

Smart collapsing for long navigation paths with ellipsis expansion.

```
<aava-breadcrumbs [breadcrumbs]="mixedBreadcrumbs"></aava-breadcrumbs>
```

## Custom Separator

Customizable separator icons and sizes.

```
mixedBreadcrumbs: BreadcrumbItem[] = [
  { icon: 'home', label: 'Home', url: '/home', active: false },
  { icon: 'folder', label: 'Category', url: '/category', active: false },
  { icon: 'file', label: 'Product', url: '/product', active: true },
];
```

## Dropdown Breadcrumbs

Interactive breadcrumbs with dropdown menus for enhanced navigation options.

```
<aava-breadcrumbs [breadcrumbs]="sampleBreadcrumbs" size="xs">
</aava-breadcrumbs>
<aava-breadcrumbs [breadcrumbs]="sampleBreadcrumbs" size="sm">
</aava-breadcrumbs>
<aava-breadcrumbs [breadcrumbs]="sampleBreadcrumbs" size="md">
</aava-breadcrumbs>
<aava-breadcrumbs [breadcrumbs]="sampleBreadcrumbs" size="lg">
</aava-breadcrumbs>
```

## Features

### Hierarchical Navigation

- Display navigation paths with clear hierarchy
- Support for unlimited breadcrumb levels
- Automatic active state management

### Icon Support

- Optional icons for each breadcrumb item
- Consistent icon sizing and coloring
- Icon-text alignment and spacing

### Collapsible Behavior

- Smart collapsing for long navigation paths
- Ellipsis expansion on click
- Configurable maximum visible items
- Maintains navigation context

### Size Variants

- Four size options: extra small (xs), small (sm), medium (md), and large (lg)
- Consistent typography and spacing across all sizes

- Responsive sizing behavior with appropriate icon scaling

## Custom Separators

- Configurable separator icons
- Adjustable separator sizes
- Consistent styling with breadcrumb items

## Dropdown Navigation

- Interactive dropdown menus for breadcrumb items
- Support for nested navigation options
- Configurable dropdown styling and positioning
- Icon support within dropdown items
- Click-outside to close functionality

## Accessibility

- ARIA attributes for screen readers
- Keyboard navigation support
- Focus management
- Semantic HTML structure

## Responsive Design

- Mobile-friendly navigation
- Adaptive collapsing behavior
- Touch-optimized interactions

## API Reference

### Inputs

Property	Type	Default	Description
breadcrumbs	BreadcrumbItem[]	[]	Array of breadcrumb items to display
size	'sm'   'md'   'lg'   'xs'	'md'	Size variant for the breadcrumbs

Property	Type	Default	Description
separatorIcon	string	'chevron-right'	Icon name for breadcrumb separators
separatorSize	number	14	Size of separator icons in pixels
dropdownIconSize	number	14	Size of dropdown icons in pixels
flyoutStyle	Record<string, string>	undefined	Custom styles for dropdown flyout
customStyles	Record<string, string>	{}	Custom styles for breadcrumb container
collapsible	boolean	true	Enable collapsible behavior for long paths
maxVisibleItems	number	5	Maximum items to show before collapsing

## Interfaces

## Methods

Method	Parameters	Description
onBreadcrumbClick()	event: Event, index: number	Handle breadcrumb item click and navigation
onEllipsisClick()	None	Expand collapsed breadcrumbs on ellipsis click
onBreadcrumbKeydown()	event: KeyboardEvent, index: number	Handle keyboard navigation

Method	Parameters	Description
getIconColor()	isLast: boolean	Get appropriate icon color based on state
getOriginalIndex()	displayedIndex: number	Map displayed index to original breadcrumb index

## Computed Properties

Property	Type	Description
displayedBreadcrumbs	BreadcrumbItem[]	Current breadcrumbs to display (considering collapse)
shouldCollapse	boolean	Whether breadcrumbs should be collapsed
shouldShowEllipsis	boolean	Whether to show ellipsis for collapsed items

## CSS Custom Properties

### Container Properties

Property	Description
--breadcrumbs-background	Background color of breadcrumb container
--breadcrumbs-font	Font family and properties for breadcrumb container

### Item Properties

Property	Description
--breadcrumbs-item-text	Text color for breadcrumb items
--breadcrumbs-item-border-radius	Border radius for breadcrumb items
--breadcrumbs-item-transition	Transition properties for breadcrumb items

Property	Description
--breadcrumbs-item-hover-text	Text color on hover
--breadcrumbs-item-active-background	Background color for active items
--breadcrumbs-item-disabled-text	Text color for disabled items
--breadcrumbs-item-disabled-cursor	Cursor for disabled items

## Current Item Properties

Property	Description
--breadcrumbs-item-current-text	Text color for current/active item
--breadcrumbs-item-current-font-weight	Font weight for current item

## Size Variants

Property	Description
--breadcrumbs-size-xs-font	Font properties for extra small size
--breadcrumbs-size-sm-font	Font properties for small size
--breadcrumbs-size-md-font	Font properties for medium size
--breadcrumbs-size-lg-font	Font properties for large size

## CSS Classes

### Container Classes

- .breadcrumb - Main breadcrumb container
- .breadcrumb.xs - Extra small size variant
- .breadcrumb.sm - Small size variant
- .breadcrumb.md - Medium size variant (default)
- .breadcrumb.lg - Large size variant

### Item Classes

- .breadcrumb-item - Individual breadcrumb item container
- .breadcrumb-separator - Separator icon styling

- .breadcrumb-ellipsis - Ellipsis container for collapsed items
- .ellipsis - Ellipsis text styling
- .dropdown-container - Container for dropdown breadcrumb items
- .dropdown-button - Button element for dropdown triggers
- .dropdown-menu - Dropdown menu container
- .dropdown-item - Individual dropdown menu items

## State Classes

- .active - Active breadcrumb item
- .inactive - Inactive breadcrumb item
- .disabled - Disabled breadcrumb item

## Best Practices

## Navigation Structure

- Keep breadcrumb paths logical and intuitive
- Use descriptive labels that match page titles
- Ensure URLs are valid and accessible

## Icon Usage

- Use consistent icon naming conventions
- Choose icons that clearly represent navigation levels
- Maintain icon-text alignment and spacing

## Dropdown Navigation

- Use dropdowns for breadcrumb items that have multiple sub-navigation options
- Provide meaningful labels and icons for dropdown items
- Configure appropriate dropdown width using dropdownWidth property
- Use flyoutStyle to customize dropdown appearance and positioning

## Collapsible Behavior

- Set appropriate maxVisibleItems based on design context
- Test collapsing behavior with various path lengths
- Ensure ellipsis expansion provides meaningful navigation

## Accessibility

- Provide meaningful labels for screen readers
- Test keyboard navigation thoroughly
- Ensure sufficient color contrast for all states

## **Responsive Design**

- Test breadcrumbs on various screen sizes
- Consider mobile navigation patterns
- Optimize touch targets for mobile devices

## **Performance**

- Avoid excessive breadcrumb levels
- Use efficient navigation logic
- Optimize icon rendering and caching

## **Use Cases**

### **E-commerce Sites**

- Product category navigation
- Search result breadcrumbs
- Shopping cart navigation

### **Content Management Systems**

- Document hierarchy navigation
- Folder structure display
- Content editing paths

### **Web Applications**

- User dashboard navigation
- Settings and configuration paths
- Multi-step form navigation

### **Documentation Sites**

- Documentation hierarchy
- Search result navigation
- Related content linking

### **Admin Panels**



- User management navigation
- System configuration paths
- Report and analytics navigation

## **Console Applications**

- Build tool navigation with dropdown options
- Agent and workflow creation paths
- Quick access to related creation tools

## **Accessibility**

### **ARIA Support**

- Proper aria-current attributes for current page
- Semantic navigation structure
- Screen reader friendly labels

### **Keyboard Navigation**

- Tab navigation through breadcrumb items
- Arrow key navigation between items
- Enter/Space activation for navigation

### **Focus Management**

- Clear focus indicators
- Logical tab order
- Focus restoration after navigation

### **Screen Reader Support**

- Descriptive labels for navigation items
- Context information for collapsed items
- Clear indication of current location

## **Responsive Behavior**

### **Mobile Optimization**

- Touch-friendly tap targets
- Optimized spacing for mobile screens

- Collapsible behavior for limited space

## **Tablet Adaptation**

- Balanced layout for medium screens
- Appropriate icon and text sizing
- Maintained navigation context

## **Desktop Enhancement**

- Full navigation path display
- Hover effects and interactions
- Enhanced visual hierarchy

## **Browser Support**

- Modern Browsers : Full support for all features
- CSS Grid/Flexbox : Required for layout
- ES6+ Features : Required for component functionality
- Angular Router : Required for navigation functionality